

IN THE CLAIMS:

Please cancel claims 40-55, 61 and 62 without prejudice or disclaimer.

Please amend claims 1, 2, 17, 27 and 33-35 as follows. A marked-up copy of the claims is attached.

1. (Amended) A method of purifying polluted soil which contains a pollutant, comprising the steps of: heating the polluted soil to make the soil emit the pollutant and bringing the emitted pollutant into contact with functional water containing chlorine under light irradiation to decompose the pollutant.

2. (Amended) A method of purifying polluted soil which contains a pollutant, comprising the steps of: heating the polluted soil to make the soil emit a gas containing the pollutant;
passing a gas through functional water to generate a gas containing chlorine;
mixing the pollutant-containing gas and the chlorine-containing gas to form a gaseous mixture; and
irradiating the gaseous mixture with light to decompose the pollutant.

17. (Amended) The method of purifying polluted soil according to claim 1 or 2, wherein the functional water has a pH of 1 to 4, an oxidation-reduction potential of 800 to 1500 mV, and a chlorine concentration of 5 to 150 mg/l.

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27. (Amended) An apparatus for purifying polluted soil which contains a pollutant, comprising a means for heating the polluted soil to make the soil emit the pollutant, a means for bringing the emitted pollutant into contact with functional water including a chlorine-containing gas generating means, and a means for irradiating the functional water with light.

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33. (Amended) The apparatus for purifying polluted soil according to claim 27 or 28, wherein the functional water has a pH of 1 to 4, an oxidation-reduction potential of 800 to 1500 mV, and a chlorine concentration of 5 to 150 mg/l.

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34. (Amended) The apparatus for purifying polluted soil according to claim 27 or 28, wherein the functional water has a pH of 4 to 10, an oxidation-reduction potential of 300 to 1100 mV, and a chlorine concentration of 2 to 100 mg/l.

35. (Amended) The apparatus for purifying polluted soil according to claim 27 or 28, wherein the light irradiated by the light irradiation means comprises a light whose wavelength is in the range of 300 to 500 nm.

Kindly add new claims 65 and 66 as follows:

65. (New) A method for purifying polluted soil which contains a pollutant, comprising the steps of:

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mixing a gas containing a pollutant emitted by heating polluted soil and a chlorine-containing gas to form a gaseous mixture; and
irradiating the gaseous mixture with light to decompose the pollutant.

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66. (New) An apparatus for purifying polluted soil which contains a pollutant, comprising:
a mixer that mixes a gas containing a pollutant emitted by heating polluted soil and a chlorine-containing gas to form a gaseous mixture; and
a light irradiator that irradiates the gaseous mixture with light to decompose the pollutant.

REMARKS

Applicants gratefully acknowledge the allowance of claims 2, 24-26, 28 and 36-39.

The claims remaining at issue are 1, 3-23, 27, 29-35, 56-60 and 63-66, with claims 1, 27, 65 and 66 being independent. Non-elected claims 40-55, 61 and 62 have been cancelled. Claims 1 and 27 have been amended for the purpose of rejoinder, as suggested by the Examiner on page 4 of the Office Action. Claims 2, 17 and 33-35 have been amended to resolve minor informalities.

New claims 65 and 66 have been added. Support for these new claims may be found in the drawings and throughout the specification, particularly at page 19, lines 2-